

U.S. Patent Application No. 10/620,269
Amendment dated October 25, 2007

REMARKS/ARGUMENTS

Reconsideration of the above-identified application is respectfully requested. Claims 1-21, 24, and 26-41 are pending. Claims 1, 34, and 37 have been amended to include the ASTM test procedures recited in the application. Claim 25 has been canceled.

Summary of Examiner's Interview

The undersigned and the applicants appreciate the interview with Examiner Hendrickson on March 22, 2007. In that interview, the claims in view of the cited art were discussed. Furthermore, various articles showing the data of various carbon blacks relied upon by the Examiner to reject some of the claims was also presented and which showed that these carbon blacks were outside of the claimed invention.

Incorporation of Arguments from the Amendment filed July 20, 2006

To avoid repetition, the arguments distinguishing the claimed invention from the cited references as presented in the Amendment filed July 20, 2006 are incorporated in their entirety by reference herein. The applicants stand by these points distinguishing the claimed invention from the cited references. In view of these noted deficiencies, each of the rejections should be withdrawn. The new rejection presented by the Examiner in the final Office Action is addressed at the end of this response.

Rejections of Claims 1, 2, 4, 5, 7-11, 26-30, and 34 over van Konynenburg et al.

At page 2 of the Final Office Action, the Examiner rejects claims 1, 2, 4, 5, 7-11, 26, 28-30, and 34 under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over van Konynenburg et al. (U.S. Patent No. 4,775,778); and claim 27 was rejected as

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being obvious under 35 U.S.C. §103(a) over the van Konynenburg et al. reference alone. The Examiner essentially rejected the claims in view of the reference to Regal 660 carbon black in van Konynenburg et al.

In response to Applicant's arguments filed July 20, 2006, the Examiner stated that: "the iodine and nitrogen are shown to correlate by the submitted Dee Snell article pg. 186. While it is true that they do not absolutely correspond, the burden is upon the applicant to show a difference; the Office does not have the facilities to do so" (Final Office Action of 9/28/06, p. 4). The rejections are respectfully traversed.

Claim 1 of the present application recites an iodine number of from about 50 to about 112 mg/g, besides other properties. Contrary to the Examiner's assertion and as explained in the interview, Regal 660 carbon black has an iodine number of 125 mg/g, and this is further shown in a portion of U.S. Patent No. 6,627,693 B1 attached. See col. 5, Table 1, Sample 8, which corresponds to Regal 660. Portions of col. 5 have been highlighted to further direct the Examiner's attention to this information. In the interview, the Examiner indicated that if such information is shown, the Examiner would consider this persuasive.

For this reason alone, as well as the other reasons provided previously, van Konynenburg et al. does not teach or suggest the claimed invention and both the §102 and §103 rejections should be withdrawn.

Rejections of Claims 1-21, 24-30, and 34-40 over Sant ('250 patent) or Sant ('251 patent)

At page 2 of the Final Office Action, the Examiner rejects claims 1-21, 24-30 and 34-40 under 35 U.S.C. §102(b) as anticipated by Sant (U.S. Patent No. 5,877,250) or Sant (U.S. Patent No. 5,877,251).

In the Final Office Action, the Examiner states that: "Applicant should fully characterize the

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Sant products because it appears from the description that they are indistinct from what is claimed”
(Final Office Action, p. 5). The rejections are respectfully traversed.

As explained in the interview, the applicants, in the previous response filed July 20, 2006, provided the following arguments:

With respect to the reference at page 13 of the present application, the reference to Sant '250 is with respect to the processes that can be used to make "carbon black products." The reference to "carbon black products" at page 13 is simply with respect to the raw materials, as well as the products that can incorporate carbon black, such as the polymer compositions. It is respectfully noted that the term "carbon black products" is referred to when referring to Sant '250 and not the term "carbon blacks." In view of this clarification, Sant '250 does not teach or suggest the carbon blacks of the present invention as set forth, for instance, in claim 1 and the dependent claims.

As explained in the interview, in the present application, no admission was made that the '250 or '251 patent teaches or suggests the claimed invention. In the interview, the Examiner suggested that these arguments be re-emphasized.

As further indicated in the previous response, as well as during the interview, Sant '250 and Sant '251 do not teach or suggest an ash content, sulfur content, or a 325 mesh residue as recited in the claims of the present application. Further, there is no teaching or motivation for one skilled in the art to make the carbon blacks having the particular parameters of claim 1, which include these parameters. For these reasons, this rejection should be withdrawn.

Rejection of Claims 1, 4, 7-9, 25, 26, 29, 30 and 34-36 over Thielen in view of Probst et al.

At page 3 of the Final Office Action, the Examiner rejects claims 1, 4, 7-9, 25, 26, 29, 30 and 34-36 under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Thielen (U.S. Patent No. 5,902,517) in view of Probst et al. (U.S. Patent No. 5,639,817). The Examiner essentially relies on Table 1 of Thielen and the reference to Ensaco 250 carbon black. This rejection is respectfully traversed.

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As explained in the interview with the Examiner, attached is a Technical Bulletin from MMM Carbon, the manufacturer of Ensaco 250 carbon black, which shows that Ensaco 250 carbon black has an average particle size of 40 nm, which would be outside the particle size recited in claim 1 of the present application. For this reason alone, this rejection should be withdrawn.

The applicants further believe that the arguments previously submitted in the Amendment filed July 20, 2006 still apply as well and these comments are incorporated in their entirety by reference herein.

Accordingly, this rejection should be withdrawn.

Rejection of Claims 1-21, 26-30, and 34-40 -- Non-statutory Obviousness-Type Double Patenting in view of U.S. Patent No. 6,852,790 and U.S. Patent No. 6,482,386

At page 3 of the Final Office Action, the Examiner rejects claims 1-21, 26-30, and 34-40 on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 22-53 of U.S. Patent No. 6,852,790 or claims 1-10, 26, 29-33, and 41 on the same grounds over claims 1-21 of U.S. Patent No. 6,482,386.

The Examiner appears to assert that the obviousness double patenting rejections permissibly point to the present specification to show properties which are part of the product (Final Office Action, p. 5). The rejections are respectfully traversed.

Applicants respectfully disagree with the Examiner's proposition. The analysis of possible obviousness double patenting is focused on whether "conflicting claims" are present between the instant application and the previously issued patent to assignee, and not whether there may be a conflicting claim when combined with unclaimed specification disclosures, as suggested in the Final Office Action (e.g., see M.P.E.P. § 804 *et seq.*). Therefore, the obviousness-type double patent rejections of record are improper.

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Accordingly, for these reasons and the reasons set forth in the response filed July 20, 2006 (incorporated herein by reference), these rejections should be withdrawn.

The Examiner references an Industrial Carbon reference, cited near the bottom of page 3 thereof. However, this reference is not included in any the rejections preceding that citation, so it is unclear whether that reference has been formally included in any rejections of record other than the one mentioned subsequently at page 4 of the Final Office Action.

Furthermore, as explained in the interview, with respect to the Industrial Carbon reference, this reference specifically states that carbon blacks leave traces on the 325 mesh screen and the weight percents can be from 0.03 to 0.15 percent. As pointed out in the interview, 0.03 percent equates to 300 ppm, which is outside of the range recited in claim 1, which is a 325 mesh residue of about 200 ppm or less.

Regarding the other positions set forth in the Final Office Action regarding the above-identified rejections, Applicant submit that they were fully responded to in Applicant's prior response of July 20, 2006, and reference is made thereto to avoid unduly burdening the record with redundancies. For these reasons, this rejection should be withdrawn.

New Rejection of Claims 1-9, 11-17, 19-21, 24-26, and 28-36 over Yamazaki et al. in view of Weaver, Dickerson and Industrial Carbon

At page 4 of the Final Office Action, the Examiner rejects claims 1-9, 11-17, 19-21, 24-26, and 28-36 under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Yamazaki et al. (U.S. Patent No. 6,025,429) in view of Weaver et al. (U.S. Patent No. 5,352,289), Dickerson (U.S. Patent No. 4,755,371) and Industrial Carbon. In the rejection, the Examiner asserts that Yamazaki et al. provides examples of acetylene blacks having low ash and grit contents and iodine values of 92 and 110 mg/g. The Examiner makes particular reference to

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Example 6 and col. 11 of Yamazaki et al. The Examiner admits that the Yamazaki et al. reference does not teach all of the claimed properties, but relies on Weaver et al. to assert that acetylene blacks are known to be low in ash and sulfur, and further relies on Dickerson to show the claimed 325 mesh residue for carbon black. The Examiner also relies on the Industrial Carbon reference as evidence that as-synthesized carbon blacks meet the 325 mesh limitation. Finally, the Examiner indicates that the claims relating to pressure pipe and other compositional features are deemed to be intended use, which does not limit the product. This is a new grounds of rejection and is respectfully traversed.

As explained in the interview, claim 1 and the claims dependent on claim 1 all require a carbon black having a primary particle size of not greater than 25 nm. Further, various dependent claims, such as claims 11-21, recite primary particle sizes which are even lower. It is respectfully noted that Yamazaki et al., Weaver et al., Dickerson, and the Industrial Carbon reference do not teach or even mention a primary particle size. This point was not addressed in this rejection. Thus, contrary to the Examiner's position and reasoning for this rejection, Yamazaki et al., alone or even combined with the secondary references, do not teach all of the claimed properties. For this reason alone, the rejection should be withdrawn.

In addition, with respect to the Examiner's reliance on Yamazaki et al., it is respectfully noted that the grit content and ash content are not based on ASTM standards, but instead are based on JIS standards, as indicated at col. 7, lines 36-55. It is respectfully noted that the JIS standards are not the same as the ASTM standards relied upon in the present application. As indicated above, the various properties of the present invention are determined using ASTM test procedures and this was specifically indicated at pages 5-7 of the present application and elsewhere. Accordingly, reliance on these numbers in the Examiner's rejection without addressing how these numbers would correspond to ASTM standards fails to establish a *prima facie* case of obviousness or even

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anticipation.

Also, it is respectfully noted that Weaver et al., while discussing carbon blacks, primarily relates to furnace carbon blacks, but does compare furnace carbon blacks to acetylene carbon blacks. However, it is again noted that the ash content and sulfur content mentioned in Weaver et al. are not based on an ASTM standard. The Examiner has not explained how the particular standards used in Weaver et al. would compare to the ASTM standards used in the present application.

With respect to the Examiner's reliance on Dickerson, the Examiner's reliance on the claimed 325 mesh is with respect to furnace carbon blacks and, therefore, its combination with Yamazaki et al. would be difficult at best. Merging acetylene carbon black properties with furnace carbon black properties simply is not a combination that one skilled in the art would make since the carbon blacks are made differently and have different properties. Even one reference relied upon by the Examiner, Weaver et al., acknowledges the difference in acetylene carbon blacks and furnace carbon blacks. Also, it appears that Weaver et al. does not use an ASTM standard to measure the 325 mesh and, therefore, has the same problems as the above-mentioned references.

With respect to the Industrial Carbon reference, the deficiencies of this reference have been addressed in the response filed July 20, 2006, but the Examiner has not responded to these arguments. As stated previously, the Industrial Carbon reference relied upon by the Examiner does not provide a 325 mesh limitation of 200 ppm or less. In fact, the only number provided is a weight percent level of from 0.03 to 0.15%, which would be far above a 200 ppm level.

Also, Weaver et al. fails to teach any I₂ No. or primary particle sizes of acetylene blacks. Dickerson refers to "Feedstock Oil" in the referenced EXAMPLE, and clearly does not relate to acetylene blacks (col. 5, line 49, col. 6, line 50), and thus Dickerson fails to possibly teach any "inherent" properties of the acetylene black of Yamazaki et al. Industrial Carbon have nothing to

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say about acetylene blacks in particular, and, therefore, it fails to possibly teach any "inherent" properties of the acetylene black of Yamazaki et al.

Lastly, the article claims do not recite "intended use" language. A pipe, such as pressure pipe, is a recognized article having meaning to those skilled in the art with respect to shape, structure, and physical parameters. Since the Examiner has not indicated where these articles are shown in the cited references, these articles are also clearly patentable over the cited art.

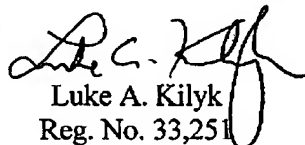
Accordingly, for these above reasons and others set forth in Applicant's previous response, all the rejections should be withdrawn upon reconsideration.

CONCLUSION

In view of the foregoing remarks, the applicant respectfully requests the reconsideration of this application and the timely allowance of the pending claims.

If there are any fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 03-0060. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,


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Attachments: Technical bulletin from MMM Carbon (1 page)
Col. 5, Table 1, Sample 8, of U.S. Patent No. 6,627,693 B1 (1 page)